

## PROPOSAL EVALUATION

### *Proposition 1E Integrated Regional Water Management (IRWM) Grant Program Stormwater Flood Management Grant, Round 2, 2013*

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<b>Applicant</b>	Los Angeles County Flood Control District	<b>Amount Requested</b>	\$ 30,000,000
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<b>Proposal Title</b>	Devil's Gate and Eaton Stormwater Flood Management Project	<b>Total Proposal Cost</b>	\$ 79,757,651
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#### PROJECT SUMMARY

The project includes improvement of three existing Los Angeles County Flood Control District (District) facilities and the construction of a new interconnecting pipeline. The existing facilities are the Devil's Gate Dam and Reservoir located within the Arroyo Seco Watershed; and the Eaton Wash Dam, and the Eaton Wash Spreading Grounds located within the Eaton Wash watershed. Proposed improvements include restoring reservoir capacity at Devil's Gate Reservoir by removing sediment; Improving seismic performance and operational capabilities, and constructing a new toe drain and erosion protection measures at Eaton Wash Dam; and enlarging and enhancing operations of the Eaton Wash Spreading Grounds. The proposed pipeline will provide a connection from the Devil's Gate Dam and Reservoir to the Eaton Wash facilities to enable conservation of stormwater captured at the Devil's Gate Dam and Reservoir.

#### PROPOSAL SCORE

Criteria	Score/ Max. Possible	Criteria	Score/ Max. Possible
Work Plan	9/15	Technical Justification	6/10
Budget	3/5		
Schedule	4/5	Benefits and Cost Analysis	21/30
Monitoring, Assessment, and Performance Measures	3/5	Program Preferences	4/10
Total Score (max. possible = 80)			50

## **EVALUATION SUMMARY**

### **WORK PLAN**

The criterion is less than fully addressed and documentation or rationales are incomplete or insufficient. The task descriptions for most project phases provide enough information to address what will be implemented. However, the work plan does not specify what method of sediment removal will be utilized for the Phase V Devil's Gate Reservoir Sediment Removal. Without this methodology, the level of downstream water quality impacts cannot be determined. This creates a high level of uncertainty regarding project implementation, as water quality impacts will play a significant role in permit acquisition. In addition, the work plan does not include a Data Management and Monitoring section, nor offer deliverables that are consistent the Data Management IRWM Plan Standard. As a consequence, it is unknown how information will be collected and disseminated to the public or stakeholders.

### **BUDGET**

The criterion is less than fully addressed and documentation and rationales are insufficient. The proposal is broken into 5 project phases, and each phase containing budget categories. The budgets for project phases have detailed cost information but supporting documentation for lump sums is not provided. For example, Budget Category (c) includes lump sums for technical studies and reports; the amounts budgeted for this varies greatly by phase and task and no justification is provided. Lump sums provided based on engineer's estimates are not broken down to the detailed line items for budget categories (d) and (e) for Phase IV (Devil's Gate Water Conservation) and V (Devil's Gate Reservoir Sediment Removal and Management). The cost associated with sediment removal is substantial (\$39 million) and stated to be based on past sediment removal costs of similar magnitude. Moreover, a description of these past projects is not provided.

### **SCHEDULE**

The criterion is fully addressed but not supported by thorough documentation. The schedule is consistent with the work plan and budget. Construction for Phase I is already completed, Phase II has started, Phase III will start June 2013, Phase IV will start August 2014, and Phase V will start March 2015. However, it is not clear if the schedule is reasonable. The estimated time to acquire permits for Phase V – Devil's Gate Reservoir Sediment Removal and Management cannot be verified without a defined sediment removal process.

### **MONITORING, ASSESSMENT, AND PERFORMANCE MEASURES**

The criterion is less than fully addressed and documentation or rationales are incomplete or insufficient. The identified monitoring targets are action items for project completion and not physical targets that will measure project performance. Without measurable targets, the appropriateness of the measuring tools and methods cannot be determined.

### **TECHNICAL JUSTIFICATION**

The proposal appears to be technically justified to achieve the claimed benefits but lacks documentation that demonstrates the technical adequacy of the project. Many of the claimed benefits are not well supported. For example, water quality benefits are claimed with the units of Acre-Foot per Year. This is a questionable way to characterize water quality benefits as it gives no consideration to constituent concentrations. Also, it appears that a

hydrologic analysis was conducted for stormwater flows generated by a bulked, 50 year, 4-day duration storm, but this cannot be confirmed as the analysis was not provided in the application.

## **BENEFITS AND COST ANALYSIS**

Collectively the proposal is likely to provide a high level of benefits in relationship to cost, but the quality of the analysis or clear and complete documentation is lacking.

The Eaton Wash flood damage reduction (FDR) analysis should consider the chance of failure given the probabilities of various storage volumes that could accumulate following a seismic event. It is not clear whether or not the analysis considers these probabilities. For the Devil's Gate Water Conservation FDR analysis, the expected annual damage (EAD) analysis appears to be in error. The interval probability for the 25-year event is not 4 percent unless the more frequent event at which no damages occur is the 1 in 12.5 year or 8-percent chance event. With this assumption, the reviewer calculates that the EAD for Devils Gate is about \$2.077 million, not \$2.769 million as claimed.

Water supply benefits in Table 17 are based on 4,167 acre-feet (AF) of supply, but documentation is lacking. The water supply benefits analysis is based on Metropolitan Water District's water rates as reported in Appendix 8-C. The analysis apparently uses the nominal cost of water, unadjusted for inflation. Real prices should be used. Assuming a 2 percent rate of inflation in the future, all claimed water supply benefits should be reduced by 29 percent.

The net present value (NPV) of costs is \$95 million. Benefits are claimed for FDR related to seismic and hydrologic events, for water supply, and a variety of unquantified benefits. The proposal includes Table 15 to display avoided projects. The inclusion of these avoided cost benefits in Table 17 with FDR benefits from Table 11 represents a double-count. For scoring, a recalculation of total benefits was required. Without Eaton Wash FDR benefits, total corrected benefits are about \$250 million, still much more than the NPV of costs of \$95 million. Non-monetized benefits are displayed in Table 13 and described briefly (Page 8-3). Some of the benefits claimed in Table 13 are not explained in the text. Devils Gate flood control benefits are discussed under non-monetized benefits but they also appear to be monetized.

## **PROGRAM PREFERENCES**

Applicant claims that 4 statewide priorities will be met with project implementation. Applicant demonstrates this with a high degree of certainty, and adequately documents the magnitude and breadth to which each will be achieved for all 4 of the preferences claimed. The proposal will achieve the following: (1) Drought Preparedness; (2) Use and Reuse Water More Efficiently; (3) Practice Integrated Flood Management; and (4) Protect Surface Water and Ground Quality.